WEST Search History

DATE: Tuesday, November 25, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,JPAB,DWPI; PLUR=YES; OP=ADJ		
L8	l5 and acylation	21	L8
L7	l6 and acylation	1	L7
L6	l5 and (sodium nitrite or sodium carbonite or sodium phosphate)	73	L6
L5	l1 same high salt	427	L5
L4	L3 and acylation	1732	L4
L3	l1 and (sodium nitrite or sodium carbonite or sodium phosphate)	11071	L3
L2	L1 same fish spermatogonium	0	L2
L1	(isolat$ or purif$) near3 (DNA or nucleic acid)	60343	L1

END OF SEARCH HISTORY

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$%^STN;HighlightOn= ***;HighlightOff=*** ;


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TERMINAL (ENTER 1, 2, 3, OR ?):2


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Righ
            Truncation
NEWS 9 AUG 18 Simultaneous left and right truncation added to ANABSTR
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NEWS 11 SEP 25 INPADOC: Legal Status data to be reloaded
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NEWS 14 OCT 21 BIOSIS file reloaded and enhanced
NEWS 15 OCT 28 BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 16 NOV 24 MSDS-CCOHS file reloaded

NEWS EXPRESS NOVEMBER 14 CURRENT WINDOWS VERSION IS V6.01c,
CURRENT
            MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
            AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
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 ********** STN Columbus **********

FILE 'HOME' ENTERED AT 16:35:38 ON 25 NOV 2003

=> FIL BIOSIS EMBASE CAPLUS
COST IN U.S. DOLLARS                SINCE FILE    TOTAL
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FILE 'BIOSIS' ENTERED AT 16:35:43 ON 25 NOV 2003
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=> s (isolat? or purif?) (3a) DNA
L1      65109 (ISOLAT? OR PURIF?) (3A) DNA

=> s l1 and fish spermatogonium
L2          0 L1 AND FISH SPERMATOGONIUM

=> s l1 and fish spermat?
L3          0 L1 AND FISH SPERMAT?

=> s l1 and spermat?
L4       2314 L1 AND SPERMAT?

=> s l4 and (sodium nitrite or sodium carbonite or sodium phosphate)
L5          1 L4 AND (SODIUM NITRITE OR SODIUM CARBONITE OR SODIUM
PHOSPHATE)


=> d bib abs

L5  ANSWER 1 OF 1  BIOSIS  COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN
AN  1976:232825  BIOSIS
DN  PREV197662062825; BA62:62825
TI  ATTEMPTS TO DETECT AGROBACTERIUM-TUMEFACIENS DNA IN
CROWN GALL TUMOR
    TISSUE.
AU  MERLO D J; KEMP J D
SO  Plant Physiology (Rockville), (1976) Vol. 58, No. 1, pp. 100-106.
    CODEN: PLPHAY. ISSN: 0032-0889.
DT  Article
FS  BA
LA  Unavailable
AB  Primary and secondary crown gall tissue cultures were established from
    sunflower plants (Helianthus annuus, cv. 'Mammoth Russian')
    wound-inoculated with A. tumefaciens (Smith and Townsend) Conn strain B6.
    Growth rates of tumor tissues and habituated healthy sunflower stem
    section tissues on basal medium lacking auxin and cytokinin were compared
    to those of healthy sunflower stem section tissue grown on the same medium
    with added phytohormones. No difference was detected in the thermal
    denaturation midpoints (74.8.degree. C) and melting profiles in 25 mM
     ***sodium***  ***phosphate***  (pH 6.8), or the buoyant densities in
    cesium chloride equilibrium centrifugation (1.687 g cm-3), between
     ***DNA***  ***isolated***  from crude nuclear preparations of the 4
    tissue types. No satellite DNA was observed in equilibrium centrifugation
    of unsheared plant DNAs. Heterologous DNA renaturation kinetic analyses
    were performed in 0.14 M  ***sodium***  ***phosphate***  (pH 6.8) at
    70.degree. C. Thermal stability measurements of reassociated DNA
    revealed less than 1% of mismatched base pairs. Reannealing of sheared,
    denatured, radioactive A. tumefaciens B6 DNA (MW, 325,000 daltons) in the
    presence of a 5400-fold excess of sheared calf thymus, healthy tissue, or
    secondary sunflower crown gall DNA obeyed 2nd order kinetics, with a
    Cot1/2 [nucleotide concentration .times. incubation time] of 2.8,
    identical to that observed when B6 DNA was reannealed in the absence of
    foreign DNA. Reannealing rates of B6 DNA in the presence of 5400-fold
    excesses of DNA from 2 lines of primary sunflower crown gall were
    increased 2.24- or 1.47-fold. Digestion of the tumor DNA preparations
    with pancreatic DNase I until no detectable DNA remained, followed by
    restoration of solution viscosity by added calf thymus DNA, failed to
    remove the acceleration effect of the tumor DNA preparations. Reisolation
    of the reannealed nucleic acid formed in this experiment, and digestion
    with RNase A or DNase I revealed that the double-stranded fraction was
    composed entirely of DNA-DNA duplexes, with no detectable DNA-RNA hybrids.
    Tumor, but not healthy tissue DNA preparations contain some factor or
    factors (not DNA) which accelerate the reannealing of bacterial DNA.
    Sunflower tumor tissue DNAs, therefore, do not contain integrated A.
    tumefaciens DNA sequences in amounts greater than a random 1/5 of the
    bacterial genome per diploid amount of plant DNA, or a complete bacterial
    genome per 5 diploid plant cell DNA equivalents. The possibility of the
    presence of many copies of a specific portion greater than 5% of the
    bacterial genome is excluded.


=> d his

    (FILE 'HOME' ENTERED AT 16:35:38 ON 25 NOV 2003)

    FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:35:43 ON 25 NOV 2003
L1      65109 S (ISOLAT? OR PURIF?) (3A) DNA
L2          0 S L1 AND FISH SPERMATOGONIUM
L3          0 S L1 AND FISH SPERMAT?
L4       2314 S L1 AND SPERMAT?
L5          1 S L4 AND (SODIUM NITRITE OR SODIUM CARBONITE OR SODIUM
PHOSPHA

=> s l4 and acylation
L6          0 L4 AND ACYLATION

=> s l1 and acylation
L7         20 L1 AND ACYLATION

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8         16 DUP REM L7 (4 DUPLICATES REMOVED)

=> s l6 and high salt
L9          0 L6 AND HIGH SALT

=> s l8 and high salt
L10         0 L8 AND HIGH SALT

=> d bib abs l8 1-
YOU HAVE REQUESTED DATA FROM 16 ANSWERS - CONTINUE? Y/(N):y

L8  ANSWER 1 OF 16  BIOSIS  COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN
AN  2003:134552  BIOSIS
DN  PREV200300134552
TI  Synthesis of long-chain fatty acid enol esters  ***isolated***  from an
    environmental  ***DNA***  clone.
AU  Brady, Sean F. [Reprint Author]; Clardy, Jon [Reprint Author]
CS  Department of Chemistry and Chemical Biology, Baker Laboratory, Cornell
    University, Ithaca, NY, 14853-1301, USA
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jcc12@cornell.edu
SO Organic Letters, (January 23, 2003) Vol. 5, No. 2, pp. 121-124. print.
ISSN: 1523-7060 (ISSN print).
DT Article
LA English
ED Entered STN: 12 Mar 2003
Last Updated on STN: 12 Mar 2003
AB Long-chain fatty acid enol ester 1 is the major metabolite of a new family of small molecules isolated from the heterologous expression of environmentally derived DNA. A versatile synthesis of 1, in which an aromatic acetaldehyde is O-acylated with a long-chain acyl chloride allowed for the rapid construction of both the isolated product (1) and a number of structural analogues (including 8, 17, and 18).

L8 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:868644 CAPLUS
DN 136:17259
TI Purification, characterization and use of inulosucrase and levansucrase from Lactobacillus reuteri
IN Van Geel-Schutten, Gerritdina Hendrika; Rahaoui, Hakim; Dijkhuizen, Lubbert; Van Hijum, Sacha Adrianus Fokke Taco
PA Nederlandse Organisatie Voor Toegepast-Wetenschappelijk Onderzoek, Neth.
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001090319	A2	20011129	WO 2001-NL392	20010523
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1283888	A2	20030219	EP 2001-934630	20010523
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI EP 2000-201872	A	20000525		
EP 2001-200049	A	20010109		
WO 2001-NL392	W	20010523		

AB The present invention describes two novel proteins having fructosyltransferase activity. One of the enzymes is an inulosucrase which produces an inulin and fructo-oligosaccharides, while the other is a levansucrase which produces a levan. Both enzymes are derived from Lactobacillus reuteri, which are food-grade microorganisms with the Generally Recognized As Safe (GRAS) status. ***Isolation*** of ***DNA*** from L. reuteri, nucleotide sequence anal. of the inulosucrase (ftfA) gene, construction of plasmids for expression of the inulosucrase gene in E. coli Top10, expression of the inulosucrase gene in E. coli Top10 and identification of the polysaccharides produced by the recombinant enzyme are described. Purifn. and amino acid sequencing of the L. reuteri levansucrase (gene ftfB) and nucleotide sequence of the gene ftfB are reported. According to the invention lactobacilli capable of producing an inulin and/or a levan and/or fructo-oligosaccharides using one or both of the fructosyltransferases can be used as a probiotic or a symbiotic.

L8 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:545718 CAPLUS
DN 135:149588
TI Method of affinity purifying proteins using modified bis-arsenical fluorescein
IN Vale, Ronald D.; Thorn, Kurt; Cooke, Roger; Matuska, Marija; Naber, Nariman
PA The Regents of the University of California, USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001053325	A2	20010726	WO 2001-US2214	20010122
WO 2001053325	A3	20020307		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
AU 2001031086	A5	20010731	AU 2001-31086	20010122
PRAI US 2000-178054P	P	20000124		
US 2000-502664	A	20000211		
WO 2001-US2214	W	20010122		

OS MARPAT 135:149588
AB The present invention features methods for purifying polypeptides of interest using a modified Fluorescein arsenical helix binder (FlAsH) compd. immobilized on a solid support. An exemplary FlAsH target sequence motif is also presented. Examples of modification of the FlAsH compd. which allow immobilization to a solid support are also provided. The present invention also provides DNA constructs for producing a dual affinity tagged polypeptide and methods for purifn. thereof. Human kinesin constructs C-terminally tagged with the peptide WEAAAREACCRECCARA (specifically chelating with .beta.-alanine-modified FlAsH, prepn. given) were expressed in Escherichia coli and purified using beads contg. .beta.-alanine-modified FlAsH. Protein was eluted using 1,2-ethanedithiol.

L8 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:724578 CAPLUS
DN 136:2148
TI Purification, cloning and characterization of a GPI inositol deacylase from Trypanosoma brucei
AU Guther, Maria Lucia Sampaio; Leal, Simone; Morrice, Nicholas A.; Cross, George A. M.; Ferguson, Michael A. J.
CS Division of Biological Chemistry and Molecular Microbiology, The Wellcome Trust Biocentre, School of Life Sciences, University of Dundee, Dundee, DD1 5EH, UK
SO EMBO Journal (2001), 20(17), 4923-4934
CODEN: EMJODG; ISSN: 0261-4189
PB Oxford University Press
DT Journal
LA English
AB Inositol ***acylation*** is an obligatory step in glycosylphosphatidylinositol (GPI) biosynthesis whereas mature GPI anchors often lack this modification. The GPI anchors of Trypanosoma brucei variant surface glycoproteins (VSGs) undergo rounds of inositol ***acylation*** and deacylation during GPI biosynthesis and the deacylation reactions are inhibited by diisopropylfluorophosphate (DFP). Inositol deacylase was affinity labeled with [3H]DFP and purified. Peptide sequencing was used to clone GPIdeAc, which encodes a protein with significant sequence and hydropathy similarity to mammalian acyloxyacyl hydrolase, an enzyme that removes fatty acids from bacterial lipopolysaccharide. Both contain a signal sequence followed by a saposin domain and a GDSL-lipase domain. GPIdeAc-/- trypanosomes were viable in vitro and in animals. Affinity-purified HA-tagged GPIdeAc was shown to have inositol deacylase activity. However, total inositol deacylase activity was only reduced in GPIdeAc-/- trypanosomes and the VSG GPI anchor was indistinguishable from wild type. These results suggest that there is redundancy in T. brucei inositol deacylase activity and that there is another enzyme whose sequence is not recognizably related to GPIdeAc.
RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:881292 CAPLUS
DN 134:39163
TI Isolation of RNA by differential labeling of the ribose moiety with an affinity label
IN Goldsborough, Andrew Simon
PA Cyclops Genome Sciences Ltd., UK
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000075302	A2	20001214	WO 2000-GB1684	20000502
WO 2000075302	A3	20010426		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2001094626	A1	20011213	WO 2000-GB1683	20000502
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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EP 1177281	A2	20020206	EP 2000-929666	20000502
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1196631	A1	20020417	EP 2000-929665	20000502
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2003039985	A1	20030227	US 2001-11495	20011026
PRAI GB 1999-10154	A	19990430		
GB 1999-10156	A	19990430		
GB 1999-10157	A	19990430		
GB 1999-10158	A	19990430		
WO 2000-GB1683	W	20000502		

WO 2000-GB1684 W 20000502

AB A method of purifying RNA from a mixt. of nucleic acids including DNA that makes use of the difference in the sugar moiety of the nucleic acid backbone is described. A sample is treated with a reactant capable of covalently modifying the 2'-OH position of the ribose rings of the RNA under conditions so that a proportion of the 2'-OH positions of the ribose rings bear a substituent followed by sepn. of RNA from other contaminants on the basis of a property of the substituent. The use of alkyl groups to modify the backbone of the RNA for capture on a hydrophobic surface, such as a modified agarose, after salting out with ammonium sulfate is demonstrated.

L8 ANSWER 6 OF 16 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1998:496094 BIOSIS

DN PREV199800496094

TI Characterization of two human genes encoding acyl coenzyme A:cholesterol acyltransferase-related enzymes.

AU Oelkers, Peter; Behari, Ajay; Cromley, Debra; Billheimer, Jeffrey T.; Sturley, Stephen L. [Reprint author]

CS Inst. Hum. Nutrition, Columbia Univ. Coll. Physicians Surgeons, 650 W. 168th St., New York, NY 10032, USA

SO Journal of Biological Chemistry, (Oct. 9, 1998) Vol. 273, No. 41, pp. 26765-26771. print.
CODEN: JBCHA3. ISSN: 0021-9258.

DT Article

LA English

OS Genbank-AF059202; Genbank-AF059203

ED Entered STN: 18 Nov 1998
Last Updated on STN: 18 Nov 1998

AB The enzyme acyl coenzyme A:cholesterol acyltransferase 1 (ACAT1) mediates
sterol esterification, a crucial component of intracellular lipid homeostasis. Two enzymes catalyze this activity in Saccharomyces cerevisiae (yeast), and several lines of evidence suggest multigene families may also exist in mammals. Using the human ACAT1 sequence to screen data bases of expressed sequence tags, we identified two novel and distinct partial human cDNAs. Full-length cDNA clones for these ACAT related gene products (ARGP) 1 and 2 were isolated from a hepatocyte (HepG2) cDNA library. ARGP1 was expressed in numerous human adult tissues
and tissue culture cell lines, whereas expression of ARGP2 was more restricted. In vitro microsomal assays in a yeast strain deleted for both esterification genes and completely deficient in sterol esterification indicated that ARGP2 esterified cholesterol while ARGP1 did not. In contrast to ACAT1 and similar to liver esterification, the activity of ARGP2 was relatively resistant to a histidine active site modifier. ARGP2 is therefore a tissue-specific sterol esterification enzyme which we thus designated ACAT2. We speculate that ARGP1 participates in the coenzyme A-dependent ***acylation*** of substrate(s) other than cholesterol. Consistent with this hypothesis, ARGP1, unlike any other member of this multigene family, possesses a predicted diacylglycerol binding motif suggesting that it may perform the last ***acylation*** in triglyceride biosynthesis.

L8 ANSWER 7 OF 16 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1998:217662 BIOSIS

DN PREV199800217662

TI Purification, amino acid sequence, and cDNA sequence of a novel calcium-precipitating proteolipid involved in calcification of Corynebacterium matruchotii.

AU van Dijk, S.; Dean, D. D.; Liu, Y.; Zhao, Y.; Chirgwin, J. M.; Schwartz, Z.; Boyan, B. D. [Reprint author]

CS Audie L. Murphy Meml. Veterans Affairs Med. Cent., San Antonio, TX 78229, USA

SO Calcified Tissue International, (April, 1998) Vol. 62, No. 4, pp. 350-358. print.
CODEN: CTINDZ. ISSN: 0171-967X.

DT Article

LA English

ED Entered STN: 11 May 1998
Last Updated on STN: 11 May 1998

AB Corynebacterium matruchotii is a microbial inhabitant of the oral cavity associated with dental calculus formation. It produces membrane-associated proteolipid capable of inducing hydroxyapatite formation in vitro. This proteolipid was purified from chloroform:methanol extracts by chromatography on Sephadex LH-20 and migrated on SDS-polyacrylamide gel electrophoresis at 6-9 kDa. Removal of covalently attached acyl moieties by methanolic KOH decreased its molecular mass to approximately 5.5 kDa. The amino acid sequence of the apoproteolipid indicated a peptide of 50 amino acids, a calculated molecular weight of 5354 Da, and an isoelectric point of 4.28. Sequence analysis revealed an 8 amino acid sequence with homology to human phosphoprotein phosphatase 2A as well as several potential ***acylation*** sites and one phosphorylation site. The purified proteolipid induced calcium precipitation in vitro. Deacylation of the proteolipid by hydroxylamine treatment resulted in >50% loss of calcium-precipitating, activity, suggesting that covalently attached lipids are required. Degenerate oligonucleotide primers, based on the amino acid sequence, were used to amplify the gene for the 5.5 kDa proteolipid from total chromosomal DNA of C. matruchotii by PCR. A 166 bp cDNA was isolated and sequenced, confirming the amino acid sequence of the proteolipid. Thus, we have sequenced a unique bacterial proteolipid that is involved in the formation of dental calculus by precipitating Ca2+ and possibly in transport of inorganic phosphate, necessary for hydroxyapatite formation.

L8 ANSWER 8 OF 16 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1

AN 1998:509215 BIOSIS

DN PREV199800509215

TI 3,4-Dichloroisocoumarin serine protease inhibitor induces DNA fragmentation and apoptosis in susceptible target cells.

AU Hameed, Arif [Reprint author]; Aslam, Uzma; Ying, Alan J.

CS Dep. Pathol., Univ. Texas, Southwestern Med. Cent., 5623 Harry Hines Blvd., Dallas, TX 75235, USA

SO Proceedings of the Society for Experimental Biology and Medicine, (Nov., 1998) Vol. 219, No. 2, pp. 132-137. print.
CODEN: PSEBAA. ISSN: 0037-9727.

DT Article

LA English

ED Entered STN: 18 Dec 1998
Last Updated on STN: 10 May 1999

AB 3,4-Dichloroisocoumarin (DCI) inhibition of serine proteases generates reactive Intermediates that have been theorized to affect apoptosis. To examine this possibility various target cells were treated with different concentrations of DCI and assessed for intracellular nuclear DNA fragmentation and apoptosis. DCI treatment caused oligonucleosomal DNA fragmentation in cell lines expressing high levels of protease activity (LAK cells, NK-92, CTLL-2, L929, 3T3). This DNA breakdown characteristic of apoptosis occurred in a dose-dependent fashion within 4-6 hr of treatment and was confirmed by electron microscopy. In cell lines expressing low levels of protease activity (unstimulated human peripheral blood mononuclear (PBMN) cells, YAC-1 cells), DCI effectively inhibited protease activity without inducing oligonucleosomal DNA fragmentation. ZN2+ significantly inhibited DCI-induced DNA degradation. The mixture of DCI and BLT esterase active NK cell lysate triggered ***DNA*** fragmentation in ***isolated*** YAC-1 nuclei. Degree of DNA fragmentation in YAC-1 nuclei was proportional to the level of BLT esterase activity. Cell lysate protease activity, initially Inhibited by DCI ***acylation*** , was restored by hydroxylamine deacylation, thus preventing DCI-mediated DNA fragmentation. Our results suggest that DCI treatment of cells expressing high levels of protease activity generates toxic levels of acyl-enzyme intermediates. These intermediates may trigger nuclear DNA breakdown and apoptosis by activating endogenous endonucleases. This affect may compromise the analysis of apoptosis in experimental systems using high concentrations of DCI for extended periods.

L8 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:313904 CAPLUS

DN 124:334835

TI Sequence-specific binding oligomers for nucleic acids and their use in antisense strategies with improved duplex stability

IN Herdewijn, Piet Andre Maurits; Van Aerschot, Arthur Albert Edgard

PA Stichting Rega VZW, Belg.

SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9605213	A1	19960222	WO 1995-EP3248	19950814
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2196306	AA	19960222	CA 1995-2196306	19950814
AU 9533845	A1	19960307	AU 1995-33845	19950814
EP 777676	A1	19970611	EP 1995-930468	19950814
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1158618	A	19970903	CN 1995-195211	19950814
HU 77509	A2	19980528	HU 1998-97	19950814
JP 2000505778	T2	20000516	JP 1996-507032	19950814
FI 9700598	A	19970212	FI 1997-598	19970212
NO 9700716	A	19970217	NO 1997-716	19970217
PRAI EP 1994-202342		19940817		
US 1995-495152		19950628		
WO 1995-EP3248		19950814		

OS MARPAT 124:334835

AB Disclosed are oligomers consisting completely or partially of 1,5-anhydrohexitol nucleoside analogs linked via phosphodiester bridges. Prepn. of 1,5-anhydro-2,3-dideoxy-2-substituted-D-arabino-hexitol nucleoside analogs, their 4,6-O-benzylidene protected derivs., succinylation of the 6-O-protected nucleoside analogs, and the prodn. of the modified oligonucleotides were demonstrated. Stability of the modified oligonucleotides with their complementary antiparallel sequences was also evaluated by detg. their melting temp. (Tm). Applications of the invention include diagnosis, therapy, ***DNA*** modification and ***isolation*** , etc.

L8 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1996:309693 CAPLUS
DN 125:2816
TI Histones associated with non-nucleosomal rat ribosomal genes are acetylated while those bound to nucleosome-organized gene copies are not
AU Mutskov, Vesco J.; Russanova, Valya R.; Dimitrov, Stefan I.; Pashev, Iliya G.
CS Inst. Mol. Biol., Bulgarian Acad. Sci., Sofia, 1113, Bulg.
SO Journal of Biological Chemistry (1996), 271(20), 11852-11857
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB Acetylation of histones bound to rat rRNA genes has been studied relative to their organization in chromatin, either as canonical nucleosomes, contg. the inactive copies, or as anucleosomal nonrepeating structures, corresponding to the transcribed genes (Conconi, A., Widmer, R. M., Koller, T., and Sogo, J. M. (1989) Cell 57, 753-761). Nuclei from butyrate-treated rat tumor cells were irradiated with a UV laser to cross-link proteins to ***DNA*** , and the ***purified*** covalent complexes were immunofractionated by an antibody that specifically recognized the acetylated histones. Upon probing with sequences coding for mature rat 28 S RNA, DNA of the antibody-bound complexes was 5-20-fold enriched relative to the total rat DNA. Since the laser cross-links histones to DNA in both active and inactive genes, one cannot distinguish which one of them, or both, are bound to acetylated histones. Alternatively, purified mononucleosomes were immunofractionated, but DNA from the antibody-bound monosomes was not enriched in coding rDNA. Taken together, these results suggest that nucleosome-organized rRNA genes are bound to nonmodified histones and that the acetylated histones are assocd. with the active, anucleosomal gene copies.

L8 ANSWER 11 OF 16 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 95277370 EMBASE
DN 1995277370
TI Large scale synthesis of p-benzoquinone-2'-deoxycytidine and p-benzoquinone-2'-deoxyadenosine adducts and their site-specific incorporation into DNA oligonucleotides.
AU Chenna A.; Singer B.
CS Donner Laboratory, University of California,Berkeley, CA 94720, United States
SO Chemical Research in Toxicology, (1995) 8/6 (865-874).
ISSN: 0893-228X CODEN: CRTOEC
CY United States
DT Journal; Article
FS 029 Clinical Biochemistry
052 Toxicology
LA English
SL English
AB Benzene is a carcinogen in rodents and a cause of bone marrow toxicity and leukemia in humans. p-Benzoquinone (p-BQ) is one of the stable metabolites of benzene, as well as of a number of drugs and other chemicals. 2'-Deoxycytidine (dC) and 2'-deoxyadenosine (dA) were allowed to react with p- BQ in aqueous solution at pH 7.4 and 4.5. The yields were considerably higher at pH 4.5 than at pH 7.4, as indicated by HPLC analysis. The desired products were isolated by column chromatography on silica gel or cellulose. Identification was done by FAB-MS, 1H NMR, and UV spectroscopy. The reaction of p-BQ with dC and dA at pH 4.5 produced the exocyclic compounds 3-hydroxy- 1,N4-benzetheno-2'-deoxycytidine (p-BQ-dC), and 9-hydroxy-1,N6-benzetheno- 2'-deoxyadenosine (p-BQ-dA), respectively, in a large scale and high yield. These adducts have been previously made in a microgram scale as the 3'- phosphate for 32P-postlabeling studies of their incidence in DNA. The p- BQ-dC and p-BQ-dA adducts have, in addition to the two hydroxyl groups of deoxyribose, one newly formed hydroxyl group at the C-3 or C-9 of the exocyclic base of each product respectively. Incorporation of these adducts into oligonucleotides as the phosphoramidite requires the protection of all three hydroxyl groups in these compounds. The exocyclic hydroxyl on the base has been successfully protected by ***acylation*** after protecting the 5'- and the 3'-hydroxyl groups of the sugar moiety with a 4,4'-dimethoxytrityl group and a cyanoethyl N,N-diisopropylphosphoramidite group, respectively. For the first time, to our knowledge, the fully protected phosphoramidites of p-BQ- dC and p-BQ-dA were prepared and incorporated site-specifically into a series of oligonucleotides. The coupling efficiency was very high (>98%). However, deprotection of the DNA oligomers with ammonia produced only 50% of the desired oligomers containing the adduct. In contrast, when 10% of 1,8- diazabicyclo[5.4.0]undec-7-ene (DBU) in methanol at room temperature was used, only the desired oligomers were detected by HPLC. Thus, by deprotecting the oligomers with methoxide ions (DBU/methanol) and avoiding the use of ammonia, a high yield of modified ***DNA*** was obtained. After ***purification*** of these oligomers by HPLC, they were hydrolyzed enzymatically and analyzed by HPLC, which confirmed the base composition and the incorporation of the adducts. The mass spectroscopic analysis of the DNA oligomers was confirmed by electrospray MS. These oligomers are now under investigation for their biochemical properties.

L8 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1995:294129 CAPLUS
DN 122:290591
TI Preparation of carbodiimide-containing biotin derivatives as reagents for detecting point mutation of gene and diagnosis of hereditary disease
IN Yamamoto, Isamu; Mukai, Tsunehiro
PA Yamamoto Isamu, Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06271581	A2	19940927	JP 1993-80196	19930315
PRAI JP 1993-80196		19930315		

OS MARPAT 122:290591
GI

/ Structure 1 in file .gra /

AB The title biotin derivs. (I; R1 = C1-6 alkyl, cycloalkyl; R2 = C1-6 alkylene; R3, R4 = C1-3 alkyl; X = halogen ion), suitable for chem. modification of genes, are prepd. The presence and position of point mutation in a gene is detd. by (1) mixing for hybridization each complimentary single strand of a normal gene and its corresponding gene assuming the presence of point mutations, (2) reacting the above biotin deriv. I, (3) adsorbing the biotin deriv.-bonded DNA to a agarose column contg. avidin or its analog, (3) eluting the column with a soln. of biotin, and (5) detg. the base sequence of the ***isolated*** ***DNA*** fragment. Diagnosis of a hereditary disease involves (1) mixing for hybridization each complimentary single strand of a normal gene and its corresponding gene assuming the presence of point mutation, (2) reacting the above biotin deriv. I, and (3) detecting the biotin deriv.-bonded DNA by luminescence or fluorescence using avidin or its analog, which confirms the presence of gene point mutations. Both complimentary single strands of a normal gene and its corresponding gene assuming the presence of point mutation are obtained by cutting genes with a restriction enzyme. The avidin deriv. is a streptoavidin-alkali phosphatase conjugate. These carbodiimide-contg. biotin derivs. I react with guanine (G) or thymine (T) of a double stranded DNA having G-T or T-G mismatching. Thus, 260 mg biotin hydrazide was dissolved in 0.5 M NaHCO3 followed by adding a soln. of 520 mg bromoacetic anhydride in dioxane at 0.degree., filtering off the pptd. crystals after 15 min, and recrystn. from H2O to give 227.4 mg N-biotinyl-N'-bromoacetylhydrazine which was stirred with 1-cyclohexyl-3-(3-dimethylaminopropyl)carbodiimide in DMF to give 97% title compd. I [R1 = cyclohexyl, R2 = (CH2)3, R3 = R4 = Me, X- = Br-] (II). Aldolase genes were cut out from both plasmid pHAA47 contg. normal A-type aldolase gene and plasmid pHAdA526 contg. A-type aldolase gene from a hemolytic anemia patent but lacking erythrocyte aldolase activity by restriction enzyme Xab and HindIII, resp., sepd. by a agarose electrophoresis, and each digested by restriction enzyme RsaI into 3 DNA. Both digested genes were heated in a hybridization buffer at 100.degree. for 10 min and left to stand at 42.degree. overnight followed by adjusting the pH to 8.5 and reacting with II at 30.degree. for 30 min. DNA's were sepd. by pptn. with EtOH, dissolved in H2O, and passed to a avidin agarose column followed by eluting the column with 1 mM aq. biotin to sep. II-bonded DNA. As expected, the 411 bp fragment was recovered and confirmed to contain a mutation with the 386th adenine replaced with guanine in the patient lacking aldolase activity.

L8 ANSWER 13 OF 16 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 1994:179968 BIOSIS
DN PREV199497192968
TI Adduct detection by ***acylation*** with (35S)methionine: Analysis of DNA adducts of 4-aminobiphenyl.
AU Sheabar, Fayad Z.; Moringstar, Marshall L.; Wogan, Gerald N. [Reprint author]
CS Div. Toxicol. Dep. Chem., MA Inst. Technol., Cambridge, MA 02139, USA
SO Proceedings of the National Academy of Sciences of the United States of America, (1994) Vol. 91, No. 5, pp. 1696-1700.
CODEN: PNASA6. ISSN: 0027-8424.
DT Article
LA English
ED Entered STN: 26 Apr 1994
Last Updated on STN: 27 Apr 1994
AB Reaction of synthetic N-(2'-deoxyguanosin-8-yl)-4-aminobiphenyl (dGuo-8-ABP) with t-butoxycarbonyl-L(35S)methionine, N-hydroxysuccinimidyl ester (35S-labeled TBM-NHS), under optimized conditions produced mono-, his-, and tris-TBM-acylated nucleosides that were separable by HPLC. Reaction of different amounts of N-(2'-deoxy-1',2'(3H)guanosin-8-yl)-4-aminobiphenyl ((3H)dGuo-8-ABP) with 35S-labeled TBM-NHS established that total 35S content of acylated products was linearly related to adduct concentration (r = 0.992) over the range of 10 fmol to 30.6 pmol. Additionally, the N-(deoxyguanosin-8-yl)-4-(3H)aminobiphenyl (dGuo-8(3H)ABP) adduct was ***isolated*** from calf thymus ***DNA*** adducted in vitro and from rat liver DNA adducted in vivo and similarly reacted with 35S-labeled TBM-NHS. ***Acylation*** products of dGuo-8-ABP from all three sources showed HPLC retention times identical to those of authentic TBM-dGuo-8-ABP, and 35S incorporation into acylated products was linearly related to amount of adduct reacted. These results indicate that the procedure, to which we have referred as adduct detection

by ***acylation*** with methionine (ADAM), has potential applicability as an analytical procedure for detection and quantification of DNA adducts in human tissues in the molecular epidemiology of cancer.

L8 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1991:82555 CAPLUS
DN 114:82555
TI Peptide and oligonucleotide purification using immunoaffinity techniques
IN Lewis, William; Stout, Jay; Van Heeke, Gino; Wylie, Dwane E.; Schuster, Sheldon M.; Wagner, Fred W.; Coolidge, Thomas R.
PA University of Nebraska, USA
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9006936	A1	19900628	WO 1989-US5737	19891221
W: AU, DK, FI, HU, JP, KR, NO, SU				
RW: AT, BE, CH, DE, ES, FR, GB, IT, LU, NL, SE				
US 5049656	A	19910917	US 1988-288009	19881221
CA 2006334	AA	19900621	CA 1989-2006334	19891221
AU 9048494	A1	19900710	AU 1990-48494	19891221
AU 645964	B2	19940203		
EP 449980	A1	19911009	EP 1990-901956	19891221
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 04504409	T2	19920806	JP 1990-502101	19891221
US 5221736	A	19930622	US 1989-454372	19891221
CA 2018377	AA	19910621	CA 1990-2018377	19900606
DK 9101203	A	19910821	DK 1991-1203	19910620
US 5464759	A	19951107	US 1993-18100	19930217

PRAI US 1988-288009 19881221
US 1989-454372 19891221
WO 1989-US5737 19891221

AB Sequentially synthesized peptides and oligonucleotides are purified by affinity techniques which involve capping the peptides with N-terminus capping agents or the oligonucleotides with 5'-terminus capping agents and contacting the capped peptides or oligonucleotides with (immobilized) affinity agents that are selective for the corresponding capping agents. The capping agents and their corresponding affinity agents constitute affinity pairs which are preferably selected from, (1) an antigenic capping agent with an antibody, e.g. an antibody for peptides with an N-terminus antigenic capping agent such as phthalic anhydride, BzCl, or naphthoyl halide, (2) an enzymic substrate, inhibitor or cofactor capping agent with its complementary enzyme affinity agent, e.g. anthranilic acid its derivs. with anthranilate synthase, (3) a vitamin or sugar capping agent with its complementary apoenzyme or lactic affinity agent, e.g. riboflavin with a glucose oxidase, and (4) a covalent bond forming capping agent with its complementary covalent bond reactant affinity agent, e.g. acrylic acid and its deriv. with a diene or acrylamide deriv. A magnetic N-terminus capping agent such as ferrocene derivs. can also be used to cap failed peptides of the sequential synthesis and the failed peptide sequences are removed by a magnet. Thus, bradykinin, i.e. H-Arg-Pro-Pro-Gly-Phe-Ser-Pro-Phe-Arg-OH, was prepd. by the solid phase method on a phenylacetamidomethylpolystyrene resin and was acylated with dinitrobenzoyl (DNB) chloride in DMF to give, after resin-cleavage, a crude DNB-capped bradykinin which was purified by immunoaffinity chromatog. on a column contg. Sepharose-bound rabbit anti-DNB antibody. Also prepd. was 5'-GAATTCGGATCCGAATTC-3' capped with 3-nitrophthalic anhydride (NPA), which was purified on an immunoaffinity column of rabbit anti-NPA antibody bound to a Sepharose gel. The oligonucleotides are useful as DNA probes in the polymerase chain reaction technique and for diagnosis or treatment of genetic disorders in humans or animals.

L8 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1977:479370 CAPLUS
DN 87:79370
TI Metabolic activation of 4-nitroquinoline 1-oxide and its binding to nucleic acid
AU Tada, Mitsuhiko; Tada, Mariko
CS Res. Inst., Aichi Cancer Cent., Nagoya, Japan
SO Fundam. Cancer Prev., Proc. Int. Symp. Princess Takamatsu Cancer Res. Fund, 6th (1976), Meeting Date 1975, 217-28. Editor(s): Magee, Peter N.; Takayama, Shozo; Sugimura, Takashi. Publisher: Univ. Tokyo Press, Tokyo, Japan.
CODEN: 35VGAV
DT Conference
LA English
GI

/ Structure 2 in file .gra /

AB 4-Hydroxyaminoquinoline 1-oxide (I) [4637-56-3], the reduced metabolite of 4-nitroquinoline 1-oxide (II) [56-57-5] was bound to nucleic acid in vitro via catalysis by seryl-tRNA synthetase [9023-48-7] from yeast. I was activated through ***acylation*** by seryl-AMP formed as part of the intermediate complex in the seryl-tRNA synthetase reaction. The isolated seryl-AMP-enzyme complex or synthetic seryl-AMP activated I. The reactive metabolite produced in the reaction may be assumed to be an aminoacylated deriv. which may attack purine residues in nucleic acid. Among the aminoacyl-tRNA synthetases in bakers' yeast cells, only seryl-tRNA synthetase had the ability to activate I. Seryl- and prolyl-tRNA synthetases in rat liver and seryl- and phenylalanyl-tRNA synthetases in Escherichia coli may participate in the activation of I. In the in vivo enzyme reaction, I bound to poly(G) and poly(A) to give rise to 3 kinds of adducts (2 quanine adducts and 1 adenine adduct) which were identical with the major products found in the RNA isolated from II-treated cells. In ***DNA*** ***isolated*** from II-treated cells, an addnl. adduct was found other than these 3. The chem. structure of the adenine adduct is proposed as either 3-(N6-adenyl)- or 3-(N1-adenyl)-4-aminoquinoline 1-oxide.

L8 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1969:409810 CAPLUS
DN 71:9810
TI Enzymic synthesis of deoxyribonucleic acid. XXVII. Chemical modifications of deoxyribonucleic acid polymerase
AU Jovin, Thomas M.; Englund, Paul T.; Kornberg, Arthur
CS Sch. of Med., Stanford Univ., Stanford, CA, USA
SO Journal of Biological Chemistry (1969), 244(11), 3009-18
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB The ***purified*** Escherichia coli ***DNA*** polymerase (I) contains a single SH group which reacts with Hg(II) to produce either a monomer contg. a single Hg atom or a dimer of 2 protein mols. joined by a Hg atom. Both forms retain full I and exonuclease activities, implying that the SH group is relatively exposed and not essential for enzymic activity. The acylating agent, N-carboxymethylisatoic anhydride, reacts with an observed max. of 11 sites on I to form a highly fluorescent deriv. with altered functional properties. Only 0.2% of original I activity but 920% of the exonuclease activity are observed at pH 7.4 with DNA as primer or substrate. Measurements of release of inorg. pyrophosphate and binding of triphosphates indicate that the predominant effect of this acylating agent is to cause a marked redn. in the affinity for deoxyribonucleoside triphosphate substrates, but concomitant changes in the interaction of I with polynucleotides are probably also involved. The data are discussed in terms of a model in which the several activities of I are catalyzed at the same active center, which is differentiated into phys. distinct sites.

=> d his

(FILE 'HOME' ENTERED AT 16:35:38 ON 25 NOV 2003)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:35:43 ON 25 NOV 2003
L1 65109 S (ISOLAT? OR PURIF?) (3A) DNA
L2 0 S L1 AND FISH SPERMATOGONIUM
L3 0 S L1 AND FISH SPERMAT?
L4 2314 S L1 AND SPERMAT?
L5 1 S L4 AND (SODIUM NITRITE OR SODIUM CARBONITE OR SODIUM PHOSPHA
L6 0 S L4 AND ACYLATION
L7 20 S L1 AND ACYLATION
L8 16 DUP REM L7 (4 DUPLICATES REMOVED)
L9 0 S L6 AND HIGH SALT
L10 0 S L8 AND HIGH SALT

=> s l8 and sodium
L11 0 L8 AND SODIUM

=> d his

(FILE 'HOME' ENTERED AT 16:35:38 ON 25 NOV 2003)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:35:43 ON 25 NOV 2003
L1 65109 S (ISOLAT? OR PURIF?) (3A) DNA
L2 0 S L1 AND FISH SPERMATOGONIUM
L3 0 S L1 AND FISH SPERMAT?
L4 2314 S L1 AND SPERMAT?
L5 1 S L4 AND (SODIUM NITRITE OR SODIUM CARBONITE OR SODIUM PHOSPHA
L6 0 S L4 AND ACYLATION
L7 20 S L1 AND ACYLATION
L8 16 DUP REM L7 (4 DUPLICATES REMOVED)
L9 0 S L6 AND HIGH SALT
L10 0 S L8 AND HIGH SALT
L11 0 S L8 AND SODIUM

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

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FULL ESTIMATED COST	84.11	84.32

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	ENTRY	SESSION
CA SUBSCRIBER PRICE	-6.51	-6.51

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